

REMARKS

I. Amendments to the Claims

Prior to entry of this Amendment and Response, claims 1-32 were pending in the above-referenced application. Some claims have been amended, but none cancelled. Accordingly, following entry of this Amendment and Response, claims 1-32 remain in this application.

Claims 1, 3, 4 and 18-21 are amended herein. In particular, claim 1 is amended to remove verbiage reciting "a skin of said monoframe carries a major part of the stresses applied to said monoframe" and incorporating verbiage basically set forth in dependent claim 4 that provides a more expansive description of the monoframe. While it is possible for the monoframe to include a "skin", it is to be appreciated that the monoframe is not limited to such a construction. In addition, claim 3 is amended herein to correct a typographical error. Claim 4 is amended to add the word "substantially". In addition, claims 18-20 are amended to correct typographical errors and to provide proper antecedent basis for various claim terms. Further, claim 21 is amended to depend from claim 20.

II. Indication of Allowable Subject Matter and Objections to Claims

Applicant thanks the Examiner for the indication that claims 20, 22, and 23 contain allowable subject matter, and for the indication that claims 20, 22, and 23 would be allowable if appropriately rewritten in independent form, including all of the limitations of their respective base claims and any intervening claims.

III. Objection to Claim 21

In the Office action, the Examiner objected to the phrase "of claim 21" in line 1 of claim 21. As discussed above, claim 21 is amended herein to depend from claim 20. As such, it is believed claim 21 is no longer objectionable and such indication is respectfully requested.

IV. Rejection of Claims under 35 U.S.C. § 103

Claims 1-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combinations of various references.

A. Rejection of Claims 1-9

In the Office action, the Examiner rejected claims 1-9 under 35 U.S.C. § 103 over Goldberg (U.S. Pat. No. 5,423,728, hereinafter "Goldberg") in view of Bowden (U.S. Pat. No. 3,233,916, hereinafter "Bowden"). Neither Goldberg nor Bowden suggest the desirability of combining of these references.

To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP § 2142. As support for the motivation to combine the references, in the Office action it is stated that "it would have been obvious to a person of ordinary skill in the art to make Goldberg's frame from semi-monocoque components since monocoque frames are relatively lighter than traditional frames while providing functionally equivalent support and resistance to compression and shear forces."

Goldberg discloses exercise bicycle frames constructed from multiple upstanding posts interconnected to form at least one triangulated structure. See Goldberg, Col. 1, ll. 49-53; Col. 3, ll. 15-19; and Figs. 1 and 8. As the Examiner correctly points out in the Office action, Goldberg does not disclose that the frame is of monoframe/monocoque construction. See Office Action, Paragraph 2, page 2. Bowden, on the other hand, discloses a vehicle frame comprised of two lightweight, preformed half shells secured together to form a unitary, hollow vehicle frame. See Bowden, Col. 1, ll. 8-11; and Figs. 1-10.

The motivation to employ the framework of Bowden in the exercise bicycle configuration of Goldberg, i.e., lighter weight with equivalent strength, cannot be found in Bowden. The disclosure of Bowden does recite that a vehicle frame of a lightweight material, such as fiber glass reinforced resin or lightweight sheet metal, is particularly desirable for bicycles or other small vehicles which are manually propelled and often lifted and carried from one place to another. See Bowden, Col. 1, ll. 12-16. Bowden's disclosure compares the strength and weight of its improved hollow frame design over preceding hollow frame designs. It does not compare to cylindrical or square tubing designs. Bowden proposes modifying past hollow frame configurations by using reduced numbers of reinforcing members to make a lighter hollow vehicle frame. In particular, Bowden points out that it had been the practice to insert tubular steel bars with a hollow frame as reinforcing frame members. See Bowden, Col. 1, ll. 23-26. Bowden also says that previous attempts to construct a bicycle frame of molded half shells were

commercially unsatisfactory because the necessity of reinforcing elements added to the weight and cost of production. See Bowden, Col. 1, ll. 36-40. Thus, Bowden is describing the advantage of its hollow frame design with previous hollow frame designs.

Bowden does not compare its frame structure with tubing structures and makes no mention or comparison to square tubing as used in Goldberg. Bowden thus does not provide any evidence that its structure is either lighter or as strong as the square tubing construction of Goldberg. Thus, there is no motivation within the disclosure of Bowden to combine the Bowden teachings with Goldberg.

Further, based on the frame configurations illustrated in the figures of Bowden, there is no inherent or indirect evidence that the Bowden frame would be lighter than a conventional tubular bicycle frame configuration. Moreover, and more importantly, there is no suggestion that the bicycle frame of Bowden, constructed from fiber glass reinforced resin or lightweight sheet metal, could be adapted to withstand the rigors of prolonged use and stresses that the Goldberg square tubing framework is adapted to absorb.

When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper See MPEP § 2142. The initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." See MPEP § 2142. Based on the foregoing, it is respectfully submitted that the analysis set forth in the Office action is insufficient to meet the initial burden of providing some suggestion of the desirability of doing what the inventor has done.

The present application certainly discusses that its monocoque frame can be built to be both strong and lightweight. Further, the present application compares its embodiments favorably in both weight and strength with respect to conventional square tubing design, like Goldberg. However, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. See MPEP § 2142. It is impermissible hindsight construction to use teachings of the present application as motivation to combine Goldberg and Bowden.

Thus, it is respectfully submitted that, for at least the reasons discussed above, there is no motivation or suggestion to combine the teachings of Goldberg with those of Bowden. As such, independent claim 1 is patentable under 35 U.S.C. § 103 over Goldberg in view of Bowden. Claims 2-9 depend from and include all the limitations of independent claim 1. Therefore, for at least the same reasons discussed above with reference to claim 1, claims 2-9 are patentable under 35 U.S.C. § 103(a) over Goldberg in view of Bowden.

B. Rejection of Claims 10-32

In the Office action, the Examiner rejected claim independent 10 under 35 U.S.C. § 103 over Forcillo (U.S. Pat. No. 6,669,603, hereinafter "Forcillo") in view of Bowden and in further view of Huang (U.S. Pat. No. 5,351,980, hereinafter "Huang").

Like claim 1, the invention set forth in claim 10 also involves a monocoque. As set forth above in the analysis of the rejection of claim 1, it is believed that the combination of Goldberg with Bowden is improper. Forcillo, like Goldberg, involves an exercise bicycle employing square tubing. Thus, it is respectfully submitted that, for at least the reasons discussed above, there is no motivation or suggestion to combine the teachings of Forcillo with those of Bowden. As such, independent claim 10 is patentable under 35 U.S.C. § 103 over Forcillo in view of Bowden and in further view of Huang.

Dependent claims 11, 16, 17, and 24-27 were also rejected under 35 U.S.C. § 103 over Forcillo in view of Bowden and in further view of Huang. In addition, dependent claims 12, 13, 18, 19, and 28-32 were rejected under 35 U.S.C. § 103 over Forcillo, Bowden, Huang, and in further view of Harris (U.S. Pat. No. 6,413,191, hereinafter "Harris"). Further, dependent claims 14 and 15 were rejected under 35 U.S.C. § 103 over Forcillo, Bowden, Huang, Harris, and in further view of Lull (U.S. Pat. No. D474,252, hereinafter "Lull"). Claims 11-32 depend from and include all the limitations of independent claim 10. Therefore, for at least the same reasons discussed above with reference to claim 10, claims 11-32 are patentable under 35 U.S.C. § 103(a).

V. Conclusion

For at least the reasons discussed herein, it is believed that all pending claims are in form for allowance, and such indication is respectfully requested.

Appl. No. 10/051,602
Amdt. dated January 18, 2006
Reply to Office action of July 18, 2005

This Amendment and Response is filed in response to the Office action of July 18, 2005 along with a Request for Continued Examination. A petition for a three month extension of time to respond to the July 18, 2005 final Office action is also hereby requested, making this Amendment and Response to Final Office Action due on or before Wednesday, January 18, 2006. Please charge the fees of \$1,020.00 for the three month extension of time and \$790.00 for filing the Request for Continued Examination, totaling \$1,810.00, to deposit account no. 04-1415. It is believed no further petitions or fees are due with respect to filing of this Amendment; however, should any such petitions or fees be necessary, please consider this a request therefor and authorization to charge deposit account no. 04-1415 accordingly.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

Date: January 18, 2006



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USPTO Customer No.: 20686